

## **REMARKS**

Reconsideration and removal of the grounds for rejection are respectfully requested. Claims 11-20 were in the application, claims 11-14 and 16-18 were amended, claim 15 was cancelled, claims 19 and 20 were previously withdrawn and new claim 21 has been added, depending from claim 16, and claim 21 is believed to be part of the elected species of Fig. 1, as the valves 28, 88 and 96 were lumped together in the elected species and claim 21 simply distinguishes for clarity the valves 28 from the (section) valves 88 and 96. The non-elected species related to the control circuits, not included in new claim 21.

The abstract, claim amendment and specification amendments have been revised in conformance with the Notice of Non-Compliant Amendment.

The Examiner objected to the drawings as failing to show the at least one sensor provided downstream of the at least one consuming device. The sensor was indeed shown but these were all indicated as sensors 38. For clarity, the specification and drawings have been amended to reference the upstream sensors as 38a and the downstream sensors as 38b. Replacement drawing sheets with this change are enclosed herewith. As the sensors were shown and described as being upstream and downstream, no new matter is involved in this amendment.

The Examiner also objected to the form of the Abstract. An amended abstract has also been submitted herewith which complies with U.S. practice, and the objection is believed to be moot.

Claims 11-18 were rejected as being indefinite for various translation, grammatical and formatting errors. Each claim has been reviewed and amended to overcome the rejection and to better describe the applicants invention. Specifically, the word "several" has been removed, claim 12 revised to properly limit the choice of available sensors, claim 13 to clarify that additional sensors could be included upstream and downstream of a consuming device as well as in the circuit flow (i.e. supply) and return conduits, per specification paragraph 0030 (see for example, the third heating section 36 where a first sensor is upstream of the first radiator, and a second sensor is located downstream of the last radiator.)

Relative to claim 18, to distinguish the valves 28 of claim 1 from the valves 88 and 96, the valves 88 and 96 are referred to as "section valves", consistent with specification paragraph 0043, and Fig. 3.

Various other changes were made to assure proper antecedent basis and to clarify the applicants invention. Should the Examiner believe that further clarifying amendment are necessary, the Examiner is invited to telephone the undersigned so as to complete these by Examiners' Amendment.

Claims 11-16 and 18 were rejected as being anticipated by DE 42 03 613 A1.

"The term "anticipation" in patent usage means that the invention was previously known to the public; that is, that it previously existed in the precise form in which it is claimed, including all of the limitations in the claim."

SmithKline Beecham Corp. v. Apotex Corp., 439 F.3d 1312, 1324 (Fed. Cir. 2006) (Emphasis Added.)

"A claim cannot be 'anticipated' by prior art that does not have all of the limitations in the claim." Helifix Ltd. v. Blok-Lok, Ltd., 208 F.3d 1339, 1346 (Fed. Cir. 2000) SmithKline Beecham Corp. v. Apotex Corp., 439 F.3d 1312, 1324 (Fed. Cir. 2006).

It is believed that this rejection has been rendered moot by the above amendment. Specifically, it does not appear that a hydraulic balancing is shown or described in the German '588 Patent. As described in the enclosed English language abstract, the '588 Patent is concerned with optimized temperature control in an individual room by opening a valve fully for the room where maximum heat is needed, while other room valves are only partially opened. Hydraulic balancing according to the '588 Patent would fall within the problems described in the present application relative to the prior art.

This is best explained with reference to Fig. 17, which shows the circuits 7, 8. In both circuits, the maximum flow volume is set by the valve provided in the return flow of the respective circuit, i.e., the valves 2 which are the duct shut off valves. These shut-off valves have no effect on the flow volume of the respective loads, V1 or V2 of circuit 7. The flows through V1 and V2 for example are controlled by the upstream valves 2. So if for example, the flow through V1 was running at 6 gpm, and the flow through V2 at 4 gpm, ft/sec, and there was a change in the duct shut off valve, to reduce the total flow by 2 gpm,

there would be no way to assure a proportional drop through each of V1 and V2 and consequently, it would be very difficult to achieve a good hydraulic balancing. Also, the number of valves required in the '588 Patent adds additional restrictions creating a pressure drop loss that further results in a loss of capacity, and increased energy requirements to overcome these restriction losses.

Using the applicants invention, there is only one valve used for hydraulic balancing each section coordinated with the other valves in the network, which also reduces the restriction losses, thus increasing capacity over the cited patent.

In conducting an obviousness analysis, "[a] fact finder should be aware . . . of the distortion caused by hindsight bias and must be cautious of arguments reliant upon ex post reasoning." KSR Int'l Co. v. Teleflex Inc., 127 S.Ct. 1727, 1742, 167 L. Ed. 2d 705 (2007). This is because the genius of invention is often a combination of known elements that in hindsight seems preordained. In re Omeprazole Patent Litig., No. MDL 1291, 490 F. Supp. 2d 381, 2007 U.S. Dist. LEXIS 39670, at \*400-01 (S.D.N.Y. May 31, 2007) (citation omitted) (quoting KSR, 127 S.Ct at 1742); see also Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138 (Fed. Cir. 1985), Raytheon Co. v. Roper Corp., 724 F.2d 951, 961 (Fed. Cir. 1983) (stating that "virtually every claimed invention is a combination of old elements"(Emphasis added)).

"It is not within the framework of 35 U.S.C. Section 103 to pick and

choose from the prior art only so much as will support a holding of obviousness to the exclusion of other parts necessary for a full appreciation of what the prior art teaches or suggests, as hindsight is not the test. In re Wesslau, 353 F.2d 238 (CCPA 1965). The Examiner "cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." In re Fine, 837 F.2d 1071, 1075, 5 U.S.P.Q.2D (BNA) 1596 (Fed. Cir. 1988).

The examiner must guard against reliance on "hindsight", best explained as follows:

The genius of invention is often a combination of known elements which in hindsight seems preordained. To prevent hindsight invalidation of patent claims, the law requires some "teaching, suggestion or reason" to combine cited references. Gambro Lundia AB v. Baxter Healthcare Corp., 110 F.3d 1573, 1579, 42 U.S.P.Q.2D (BNA) 1378, 1383 (Fed. Cir. 1997). When the art in question is relatively simple, as is the case here, the opportunity to judge by hindsight is particularly tempting. Consequently, the tests of whether to combine references need to be applied rigorously. See In re Dembiczak, 175 F.3d 994, 999, 50 U.S.P.Q.2D (BNA) 1614, 1617 (Fed. Cir. 1999), limited on other grounds by In re Gartside, 203 F.3d 1305, 53 U.S.P.Q.2D (BNA) 1769 (2000) (guarding against falling victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher). McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1351, 60 U.S.P.Q.2D (BNA) 1001, 1008 (Fed. Cir. 2001).

Moreover, to support a conclusion that a claim would have been obvious, it must be established that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art. KSR, at 416-417.

Here, the use of multiple valves responsive to temperature changes alone does not provide an adequate control system for achieving hydraulic balancing, and so there are substantial differences in the structures of the prior art as well as their respective functions. Attempting to modify the system of the '588 Patent goes beyond the description in the '588 Patent and even if made would not arrive at the applicants' invention. One would need to significantly change the structures and functions of the various prior art components to arrive at the applicants' invention, a violation of the KSR analysis.

Based on the above amendments and remarks, reconsideration and allowance of the application are respectfully requested. However, should the examiner believe that direct contact with the applicant's attorney is necessary to advance the prosecution of the application, the examiner is invited to telephone the undersigned at the number given below.

Respectfully submitted,

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